

NOTE TO OUR READERS

Listening to Missourians

s long as I can recall, the outdoors has been an important part of my life. Growing up, I saw how local staff of the Missouri Conservation Department shared their understanding of and enthusiasm for

the outdoors with others. Their commitment to a conservation ethic helped shape my interests and choice of career.

Department employees have a combination of motivation, expertise, compassion, and dedication that both amazes me and gives me a sense of pride. They work to deliver more than is expected. Individuals, communities, schools, organizations, and businesses all work together with Department staff to ensure that healthy forests, fish, and wildlife are available today and for future generations.

To accomplish the vision of the Conservation Department, we work with Missourians seek your ideas and opinions. The interest of Missourians is the foundation of the Department's work. We strive to deliver satisfaction and to establish and maintain a high level of trust.

For more than 30 years, the Department has conducted attitude, opinion, satisfaction, and participation surveys and focus groups to determine the opinions and attitudes of Missourians about conservation and the Department. This information helps guide decisions about regulations and forest, fish, and wildlife management.

Last year, we conducted numerous activities to gauge the opinions and attitudes of Missourians that involved tens of thousands of citizens, including hunters, anglers, landowners, city officials, businesses, conservation partners, visitors to our nature centers, and others. Efforts included surveys, focus groups, open houses, comments and presentations to the Regulations Committee, and contacts with the Department's Ombudsman.

This year, the Department is conducting the Conservation Opinion Survey. Developed with the assistance of a team of experts at the University of Missouri-Columbia, the survey will include questions about Missourians' participation in outdoor activities, their satisfaction with conservation efforts, and how



Department staff can best meet their expectations. The survey has been sent to a random sample of citizens that were selected across rural, suburban, and urban areas of Missouri. This large-scale survey effort has been conducted about once every 10 years.

Gathering public input on proposed regulations is an ongoing effort for the Department. Citizens are invited to share their opinions about regulations through a variety of venues including the Department's regulation comment page at *mdc.mo.gov/node/19209*. Department regulations are formed and discussed in a public setting where citizens are invited to attend. To find upcoming meeting dates and tentative agendas, please visit *mdc.mo.gov/node/5525*, or contact the Department headquarters at 573-751-4115.

Answering citizens' questions and suggestions is the priority role of the Department's Ombudsman. You can find his contact information, and read his monthly column, on Page 5.

Missourians care about conserving forests, fish, and wild-life. Most Missourians (91 percent) report they are interested in Missouri's forests, fish, and wildlife. Most Missourians (85 percent) agree that the Missouri Conservation Department "is a name I can trust." The Conservation Department believes that all Missouri citizens are important and we want to listen and act to earn their trust. Our job is to listen, understand, and deliver programs and services in a manner that benefits all Missourians and the forest, fish, and wildlife resources in Missouri.

If you get a Conservation Opinion Survey, I encourage you to complete it so we can further improve our efforts.

Robert L. Ziehmer, director

FEATURES

IO Wetlands Reimagined

by Vic Bogosian III

The remnants of a once-continuous chain of wetlands stretching thousands of miles are carefully managed to ensure a lasting resource for wildlife, outdoor enthusiasts, and local communities.

18 Opening Day

story and photos by Larry R. Beckett March 1 is the beginning of the catch-and-keep trout season.

24 Turkey Time

by Bill Graham, photos by David Stonner

Newcomers to turkey hunting are just a few simple and affordable steps away from enjoying the smells, sights, and sounds of spring in a fresh and exciting way.

Cover: A wild brown trout is caught in the North Fork of the White River near Tecumseh, MO, by David Stonner. Opening day of catchand-keep trout season is Friday, March 1.

24-70mm lens • f/9 • 1/80 sec • ISO 200

DEPARTMENTS

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Our photographers have been busy exploring the intricacies of the Missouri outdoors. See if you can guess this month's natural wonder. The answer is revealed on Page 7.



SHED THE WINTER BLUES

My name is Jon Overmann and I live in south St. Louis. I'm an avid hunter, fisherman, and reader of the Conservationist. I wanted to drop you an email to let you know how much I appreciated your article *On the Hunt for Antler Sheds*. For me, as for most people in the Midwest, January is a slow time for outdoor recreation (with the exception of an occasional trout trip).

I was working last weekend at my in-laws' farm, near Hermann, where we hunt in the fall. After the morning of work I decided to take a hike for sheds and to look at some of the areas of the farm I haven't been on before. I've been on numerous hikes and drives around the farm, but until reading the article I hadn't been out in January, at least not looking for sheds.

Much of my family looked at me like I was crazy to go on a hike specifically for sheds, and no one else wanted to go. They were shocked when I actually found a shed. My sister told me she now wants to go out on a "shed hike." So

now, instead of the dreaded January drought of outdoor activity, shed hikes will give us something to look forward to in January. I'm thinking about making a drive out to the farm and taking another hike this weekend to see if I can find the second antler.

Jon Overmann, via Internet

ON SILENT WINGS

I opened my February Conservationist today and experienced quite a pleasant surprise! Noppadol Paothong's article about observing short-eared owls in Missouri [Page 10] was accompanied by beautiful photographs; however, my delight came from a small addition: the photo information (which included lens length, aperture, shutter speed, and ISO).

As an avid birdwatcher and amateur photographer, this information is very helpful to improve my photography skills, and also to remind wildlife viewers that full-frame photos don't always come from approaching wildlife as close as you can get. We all wonder "how did he get that shot?" and having this information helps readers improve their photography and inspire us to continue learning.

Christian Hagenlocher, St. Louis

I never cease to be amazed at the high caliber of your images by photographer Noppadol Paothong. They are intensely clear imagery, very creatively composed, just stellar. I would be happy to hang many on the walls of my home! The cover of the January issue is just amazing.

Valerie Bashaw, via Internet

FAMILIAR FACES

I was reading through the February issue and noticed a picture of my dad, Doug Keating, and me [2013 Regulations Update; Page 26]. I was 12 years old in that picture, and I also harvested my first deer (a doe) that day at Caney Mountain Conservation Area in Ozark County. In fact, dad and I both harvested a deer that same day.

I think it is really neat to see this picture for the second time, the first being in the January 1999 issue. My dad and I still hunt together. I will turn 30 in August, I am now a special education teacher who shares my passion of hunting and the outdoors with my students.

Matt Keating, via Internet

CLARIFICATION

I'm sure my brother-in-law Greg Hoss did not mean to imply that the Hoss family has owned 30 acres along Missouri's Black River in Iron County [Mission Impossible?; January], when his father-in-law, Albert Fuchs, my father, has actually owned that property for that length of time. It would be nice to have Albert Fuchs recognized as the correct land owner.

Jean Fuchs, via Internet

Editors' note: The article reads that "Hoss's family has owned land along Missouri's Black River in Iron County since the 1970s." We are happy to provide this clarification as we understand how there might be some confusion.



David Steele, of Troy, photographed this American dog tick, one of several, during an early March hike. "I was being actively hunted by each of these ticks while I was trying to photograph them," said Steele. Steele said he and his girlfriend are avid nature photographers and his favorite method of photography is close-up, macro photography like this tick image. "One of our goals is to photograph all of the conservation areas and state parks in Missouri."



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Discover more about nature and the outdoors through these sites.

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HUNTING AND FISHING CALENDAR

FISHING	OPEN	CLOSE
Paddlefish	3/15/13	4/30/13
Paddlefish on the Mississippi River	3/15/13	5/15/13
	9/15/13	12/15/13
Trout Parks	3/01/13	10/31/13
Nongame Fish Snagging	3/15/13	5/15/13
HUNTING	OPEN	CLOSE
Coyote	5/07/12	3/31/13
Crow	11/01/12	3/03/13
Deer		
Archery	9/15/13	11/15/13
	11/27/13	1/15/14
Firearms		
Urban	10/11/13	10/14/13
Early youth	11/02/13	11/03/13
November	11/16/13	11/26/13
Antlerless (open areas only)	11/27/13	12/08/13
Alternative Methods	12/21/13	12/31/13
Late Youth	1/04/14	1/05/14
Turkey		
Archery		
	9/15/13	11/15/13
	11/27/13	1/15/14
Firearms		
Youth	4/06/13	4/07/13
Spring	4/15/13	5/05/13
Fall	10/01/13	10/31/13
Waterfowl please see the	Waterfowl Hun	ting Digest or
see md	c.mo.gov/nod	e/3830
TRAPPING	OPEN	CLOSE
Beaver and Nutria	11/15/12	3/31/13

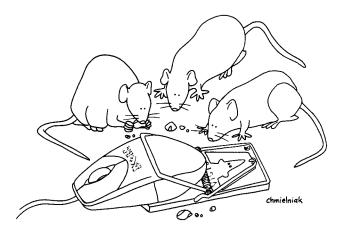
For complete information about seasons, limits, methods, and restrictions, consult the Wildlife Code and the current summaries of Missouri Hunting and Trapping Regulations and Missouri Fishing Regulations, The Spring Turkey Hunting Regulations and Information, the Fall Deer and Turkey Hunting Regulations and Information, the Waterfowl Hunting Digest, and the Migratory Bird Hunting Digest. For more information visit mdc.mo.gov/node/130 or permit vendors.

Operation Game Thief

Help put game thieves out of business. If you see a possible violation in progress, call your county conservation agent immediately or dial the toll-free number below:

1-800-392-1111

All information is kept in strict confidence.



Agent Notes

The Importance of Fishing Regulations



MARCH BRINGS A variety of fishing opportunities for citizens to enjoy throughout Missouri. March 1 also

marks the first day of the new permit year for Missouri anglers. Obtain your 2013 permit at a local vendor, Department office, or online at *mdc.mo.gov/node/9258*. Don't forget to get a copy of the 2013 Summary of Missouri Fishing Regulations and read up on the fishing regulations in our state. You can also find a PDF of the summary at *mdc.mo.gov/node/3104*.

Besides no-permit violations, conservation agents also encounter violations such as fishing equipment not properly labeled, keeping more than a possession limit of fish, failing to keep fish separate or distinctly identifiable from one another, and fish of illegal length.

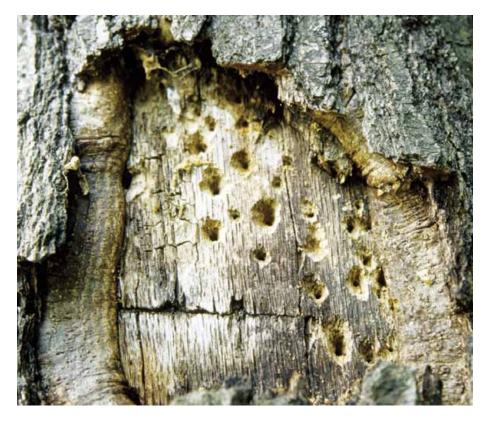
While regulations may seem burdensome to some, remember that fish and game laws are designed to protect the resource, protect the user, and provide equal harvest opportunity. Your Conservation Department works hard to educate anglers and all outdoors enthusiasts on the rules governing their activity. These efforts include printed information, radio programs, web pages, social media, classes, and newspaper and magazine articles.

Take the time to educate yourself on the rules and regulations governing your sport or activity before heading out to enjoy Missouri's outdoors. If you can't find the answer to your regulations question, feel free to contact one of the Department's offices or the Ombudsman (see Page 3 for contact information).

Nick Laposha is Kansas City Regional Supervisor. If you would like to contact the agent for your county, phone your regional conservation office listed on Page 3.

ASK Ombudsman





Q: I have a tree in my yard that has a rather uniform grid of shallow holes in the bark of the trunk. What caused that, and will it harm my tree?

A: You are most likely seeing the work of a type of woodpecker called the yellowbellied sapsucker. As the name implies, the small holes are drilled to give the bird access to the sweet tree sap that pools in the holes. The birds will also eat the inner bark and catch insects that are attracted to the sap. Flying squirrels may also feed on the sap at night as will hummingbirds during the day, if the sapsucker does not run them off. Sapsuckers may be found in Missouri from early September through April but they spend the breeding season in Canada and the northern U.S. The marks on a tree trunk will persist for years and the same tree

may be visited periodically. The shallow holes do not generally result in significant damage to tree health. Here's a link to information on woodpecker damage, including that from sapsuckers: extension.missouri.edu/p/G9449.

Q: I recently saw a squirrel in my yard carrying a dead bird in its mouth. That is something I have not seen before. Do squirrels eat birds?

A: The diet of squirrels is extremely varied. While they are primarily vegetarian, they will also eat insects and insect larvae, mushrooms, shed deer antlers,

old turtle shells, frogs, small rodents (including their own young), eggs, young birds from nests, and occasionally a small bird that is not a nestling. I usually receive a report or two each year from people who observe squirrels carrying or eating small birds. I do not know what causes them to sometimes eat meat, but I expect that they have a need for minerals and nutrients that are not available from accessible plant materials. The behavior is rare enough that most people who observe it have never seen it before.

Q: What are the white-flowering trees that usually begin blooming in March in Missouri forests?

A: We have several species of native plums that can bloom in March, but I think you are referring to another native tree called serviceberry (Amelanchier arborea). Other common names include shadbush, sarvis tree, and shadblow. It frequently grows on forested upper slopes and ridge tops. It opens its white flowers while most other trees are still dormant. so it stands out in the mostly gray forests in late winter. Its flowers appear before its leaves unfurl. The bark is smooth and gray on younger trees but develops some long grooves as it ages. Serviceberry is in the rose family and is therefore related to apples and plums. The fruits of serviceberry are edible and somewhat resemble small (about % inch in diameter) apples that turn from green to reddish-purple in June or July. Many species of birds and mammals eat the berry-like fruits.

Ombudsman Tim Smith will respond to your questions, suggestions or complaints concerning Department of Conservation programs. Write him at PO Box 180, Jefferson City, MO 65102-0180, call him at 573-522-4115, ext. 3848, or email him at Ombudsman@mdc.mo.gov.

NEWS & EVENTS by

by Jim Low



2012 Deer Harvest Up

Bowhunters posted increases in both deer and turkey harvests last year. Bowhunters checked 53,997 deer during the four-month archery season. That is a 2.5-percent increase from the previous year, which was a record. Archers checked 3,217 turkeys, a 10-percent increase from the previous year.

The 2012 archery and firearms deer harvests totaled 311,304, up 6.8 percent from 2011. The spring and fall firearms and archery turkey harvests totaled 56,511, an increase of 8.2 percent from 2011.

The 2012–2013 archery turkey harvest was up more than 20 percent from the previous five-year

average and was second only to the 2009–2010 harvest of 3,298. This reflects the increase in popularity of bowhunting and improved turkey hatches in 2011 and 2012.

Increasing popularity of bowhunting was partly responsible for the strong archery deer harvest. Hunters also got a boost from weather that reduced the availability of acorns. Deer rely heavily on acorns for fall food, and when that food item is scarce they have to move around more to meet their nutritional needs. That makes them more visible to hunters.

Increased incidence of hemorrhagic diseases in 2012 did not reduce the statewide deer harvest noticeably. However, that does not mean deer populations were not affected. Hemorrhagic mortality probably did affect deer populations across much of Missouri, but it is still too early to tell if harvest decreases in some localities was the result of disease or other factors. The Conservation Department will consider reducing the availability of antlerless-deer permits in areas where deer numbers seem to be near or below target levels. Hunters and landowners also can take an active role in decisions about how many does to shoot.

Restricting doe harvest can help when deer numbers are down over large areas, but such blanket solutions take a valuable tool away from Missourians who want to manage deer populations locally. Current regulations empower hunters and landowners to work together to manage deer numbers.

MDC recorded 10 firearms-related deerhunting incidents during the 2012–2013 hunting season. Three were fatal.

Second National Blueway

The White River, whose sinuous ramblings stitch together the Missouri-Arkansas border, became the second "national blueway" in January, recognizing the priceless asset it represents and helping ensure it remains so.

State and federal officials announced the designation at a press conference Jan. 9 in Little Rock, Ark. The designation includes the river and its entire watershed. The Connecticut River became the first blueway in 2012.

The U.S. Department of the Interior established the National Blueways System to empha-

size the value of a partnership approach to river conservation that considers all the activities and uses within the watershed.

National blueways are chosen for their national significance and for their outstanding recreational, economic, cultural, and ecological values. Irrigation is ranked as the White River's biggest economic value, followed by recreation-based tourism. The river and its tributaries also provide drinking water for many of the 1.2 million people living in the watershed.

The White River flows 722 miles from its headwaters in Arkansas's Boston Mountains, through southern Missouri and eventually into the Mississippi River in southeast Arkansas. Its watershed encompasses 17.8 million acres.

Blueway partners include the U.S. departments of the Interior and Agriculture, the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, the Missouri Department of

Conservation, the Arkansas Game and Fish Commission, The Nature Conservancy, Ducks Unlimited, the Missouri and Arkansas Audubon societies, the National Wildlife Refuge Association, the Missouri Stream Team Watershed Coalition, the James River Basin Partnership, Ozarks Water Watch, the Watershed Committee of the Ozarks, The Ozarks River Heritage Foundation, and other government and citizen conservation agencies.

Watch for Skunks, Bats

The approach of spring means more active wildlife, and Missourians should be aware of two kinds of animals that can carry rabies.

The incidence of rabies is low, but skunks and bats both are susceptible to the type of rabies found in Missouri. The Missouri Department of Health and Senior Services (DHSS) documented only 28 cases last year out of more than 600

skunks and bats tested. Those cases were confined to 14 of Missouri's 114 counties.

It pays to be cautious, however, because there is no treatment for rabies once symptoms appear. That makes it critical to act immediately if bitten by any wild animal or a domestic animal that has not been vaccinated for rabies. First, flush the wound with running water for five minutes and then disinfect it with alcohol, tincture of iodine, or other antiseptic. Then get to a doctor. Rabies treatment no longer requires painful injections into the abdomen. Today, treatment consists of a series of shots in the arm.

The biting animal should be trapped or killed if this can be accomplished safely. If possible, contact a law-enforcement agency so they can dispatch a conservation agent or animal-control officer to do the job.

To test an animal for rabies, health officials need the undamaged brain of the biting animal.



WHAT IS IT?

Wood Duck

Aix sponsa On Page 1 and right is a male wood duck in breeding plumage. Wood ducks are common summer residents. They form pairs in midwinter and usually have two broods a year. Clutches comprise 6-16 eggs, which are incubated 28-37 days. The young are covered with down when they hatch and jump from the nest cavity a day after hatching. Nest cavities can easily be 60 feet aboveground in a hollow place in a trunk. Wood ducks also readily use specially made nest boxes. Habitat loss and overhunting caused severe declines in the wood duck's population by the late 1800s, but federal and state conservation laws helped rescue this species, and artificial nesting boxes have helped increase populations to where they are now stable.—Noppadol Paothong

NEWS & EVENTS

(continued from Page 7)

So if the animal is shot, it should be shot in the body, not the head. A skunk will spray when shot, so stay upwind and shoot from a distance if possible.

Use rubber gloves when handling dead animals and avoid any contact with the body. Place it in a garbage bag and then double bag it. Live animals should be confined in a manner that prevents contact with other animals or people. Call a conservation agent, law-enforcement agency, or state or local health department for help with testing.

While bats account for most of the confirmed cases of rabies, it is important to remember that the disease is rare, even in bats. Less than 3 percent of the bats tested for rabies last year were

found to have the disease, and tested individuals have usually exhibited some suspicious behavior.

Raccoons, coyotes, and foxes are known carriers in other states, but the type of rabies that affects them is not found here. Missouri's ban on importing these animals is aimed at keeping other strains of rabies out of the Show-Me State.

Black River Yields Record Shad

Brian Taylor, Poplar Bluff, hauled a record-breaking 1-pound, 14-ounce gizzard shad from the Black River Jan. 9 to set the first Missouri State fishing record of 2013. Taylor gigged the 16-inch fish, earning himself an alternative-methods



record. The previous record was a 1-pound, 8-ounce fish taken by Haden Crouch, Bradleyville, from Beaver Creek in 2011. The pole-and-line record belongs to Johnny Lee Ash, Windsor, for a 1-pound, 6-ounce gizzard shad he caught below Truman Dam in 2001.

MDC, Landowners Work to Slow CWD Spread

The latest round of testing for chronic wasting disease (CWD) in Missouri found only one infected deer. The Conservation Department is working with landowners in the CWD Core Area to minimize the potential for spreading the disease.

The core area covers 29 square miles. This is less than 1 percent of the six-county CWD Containment Zone, which includes Adair, Chariton, Linn, Macon, Randolph, and Sullivan counties. All six of the free-ranging deer that have tested positive for CWD to date came from this small area.

The Conservation Department is working with landowners to reduce deer numbers in the CWD Core Area. Other states' experiences with CWD indicate this is an effective strategy for reducing the potential for CWD to spread.

This year's deer-reduction effort was conducted between January and March and involved MDC staff working with cooperating landowners to shoot deer on their property.

"Extensive testing indicates that we caught CWD early, while it was still limited to a small number of deer in a very concentrated area," says



Forest Nursery Open House

The staff of George O. White State Forest Nursery raises 3 to 4 million tree and shrub seedlings each year. On April 6, they will set aside shovels and trowels and concentrate on raising awareness of their amazing work by hosting an open house.

Everyone is invited to the event from 9 a.m. to 2 p.m. Take a tour of the 100-acre nursery operation, where everything from pecans to pawpaws and witch hazel to walnuts are grown. See the lifting equipment used to harvest seedlings, and check out the grading and shipping rooms where orders are filled. Top off your tour with a complimentary lunch as guests of the nursery staff.

"Lots of people have bought seedlings from us for decades without ever knowing where their trees and shrubs come from," says Nursery Supervisor George Clark. "We think it would be nice if folks could put a place and faces with the name."

The nursery is located 3 miles north of Licking, at 14027 Shafer Road, on the west side of Highway 63. Call 573-674-3229 for more information.

Resource Scientist Jason Sumners. "We hope that by significantly reducing the number of deer in the area where CWD has been found we can remove infected animals. This will help reduce, or potentially eliminate, the further spread of the disease."

Sumners notes that more than 90 percent of Missouri land is privately owned, so landowners are vital to deer management and to efforts to limit the spread of CWD.

"We greatly appreciate the cooperation and sacrifices of landowners in the CWD Core Area," says Sumners. "While this will greatly reduce deer numbers in this area in the short term, the effort will ultimately help protect the health of deer in the area and throughout the state by limiting the spread and impact of CWD."

The latest finding is a result of MDC collecting tissue samples from 1,665 hunter-harvested deer in the CWD Containment Zone. The sampling effort took place during the past fall archery and firearms deer seasons as part of MDC's ongoing CWD testing efforts.

Catch a Trout

Brown and rainbow trout are biting right now in dozens of places around Missouri. Catch-and-keep trout fishing begins March 1 at Missouri's four trout parks. MDC stocks trout in lakes and ponds for winter fishing in Jefferson City, Columbia, Kirksville, Mexico, Liberty, Sedalia, St. Joseph, Jackson, and 17 different locations in the St. Louis and Kansas City areas. Anglers looking for more adventure can visit one of Missouri's 17 red-, white-, or blue-ribbon trout streams or Lake Taneycomo, home of the state-record brown trout (28 pounds, 12 ounces). For more information, see pages 16 through



DID YOU KNOW?

We work with you and for you to sustain healthy forests.

Wildfire Prevention and Suppression

- **» » Wildfire Suppression:** MDC cooperated with fire departments across the state to suppress 3,505 wildfires that consumed 35,141 acres last year. The main cause of wildfire is the use of fire to dispose of debris.
- » Volunteer Fire Departments: MDC, in cooperation with the U.S. Forest Service, granted \$371,101 to 185 volunteer fire departments. The grants fund protective clothing, equipment, and training. Equipment was also provided through two federal programs. Through the Federal Excess Property Program we obtained equipment valued at \$427,287. The new Fire Fighter Program obtained equipment valued at \$13,165,721. Since 1951, we have assigned more than \$70 million in equipment to volunteer fire departments.
- » » Operation Forest Arson: Operation Forest Arson continues to help catch forest arsonists. Citizens can call toll free at 1-800-392-1111 to report violations anonymously. Callers are eligible for rewards if arrests are made from their calls.
- **» » Fire-Suppression Training:** MDC provides annual wildland fire-suppression training to fire departments throughout the state. We conducted 23 sessions and trained more than 427 local firefighters in fire behavior, suppression techniques, and safety at no cost to the fire departments or the volunteers.

20 of the 2013 Summary of Fishing Regulations, available at permit vendors statewide or at *mdc. mo.gov/11414*. For a list of trout-fishing areas, see *mdc.mo.gov/node/5603*.

Midyett Named Agent of Year

Dent County Conservation Agent Jason Midyett is Missouri's 2012 Conservation Agent of the Year. He began his career with MDC in 2000 as a Fisheries resource assistant at Bennett Springs and completed the intensive, 26-week agent training in 2005, then was assigned to Barry County. He transferred to Phelps County in 2009 and moved to Dent County in 2011.

Ozark Region Protection Supervisor Gary Cravens says Midyett has developed a tremendous program of resource law enforcement and public relations that extends beyond his assigned county.

Midyett grew up in Dent County before attending college at the University of Missouri-Columbia and earning his bachelor's degree in Fisheries and Wildlife Biology in 1998. He lives in Salem with his sons, Wilman and Oliver.

For information on careers in conservation, visit **mdc.mo.gov/node/9827**.

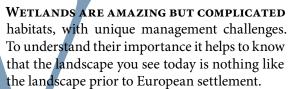


Wetlands REIMAGINED

The remnants of a once-continuous chain of wetlands stretching thousands of miles are carefully managed to ensure a lasting resource for wildlife, outdoor enthusiasts, and local communities. by VIC BOGOSIAN III







Two hundred years ago, the Missouri River corridor was a broad, flat river floodplain that was full of tree snags and sandbars. It was not a river that maintained water levels throughout the course of a year; instead, it would have peak flows in March and June due to snowmelt runoff from the far northern extent of its drainage system. It was a river that made colonization of the Midwest very difficult. To overcome this challenge, the U.S. government charged the Army Corps of Engineers to clear the river of snags. Over the years, they also erected a series of dams and reservoirs in the upper reaches of the river to combat frequent flooding. The goal was to make farming the river bottoms realistic, and to support a navigation channel for public travel and shipping commercial goods.

These changes helped settlers populate the Midwest, but they also affected natural communities and populations. Wetlands were reduced by as much as 95 percent in some states. Most of Missouri's wetlands declined during the 20th century, and so did animal populations that required wetlands. Hundreds of species use wetlands for some or all of their life cycles.

Waterfowl declined in the 20th century until conservation agencies and partner organizations like Ducks Unlimited made efforts to conserve land and populations. Efforts like out-



lawing market hunting and enacting conservation legislation, including the Federal Duck Stamp Program, Wetland Reserve Program, and the North American Wetland Management Plan, have helped restore critical wetland habitat for ducks, geese, and swans, as well as other migratory and non-migratory species. Additional wetland restoration has been possible due to partnerships with the Army Corps of Engineers, now an active player in mitigating wetland loss in the U.S.

The landscape of today is much improved from that of 50 years ago; 140,000 acres of wetlands have been restored in Missouri since 1994. But the alterations to the big river systems remain, and restoring the landscape to its former state is not economically or logistically realistic. Instead, wildlife professionals have worked out

B.K. Leach

Memorial

Conservation

Area in Lincoln

County is one of

15 wetlands the

Conservation

Department

manages throughout

the state.





creative solutions to provide stopover habitat for animals along the route of their migration paths. Government agencies manage wetland areas to provide maximum food and habitat conditions for these animals. The Department of Conservation intensively manages 15 of these areas throughout the state. These remnants of what was once a continuous chain of wetlands stretching thousands of miles are essential to sustain the wildlife that depends on wetlands.

Wildlife Management on MDC Wetlands

A basic understanding of biology, ecology, geology, and water chemistry — the processes that make life work — is needed to manage our wetland areas. We must also consider the timing of migration events, reproductive events, and

area-use needs as we plan our activities. Often these plans get reworked several times in a year as conditions change. Each of our intensively managed wetland areas has its own unique combination of factors that managers must learn. Eagle Bluffs Conservation Area in Boone County, for example, is dominated by the Missouri River. When the river is high, ground water levels are also high, making it easier to flood pools and more difficult to drain them. If the river is low, the sandy soils of the river bottom that dominate Eagle Bluffs makes it impossible to flood pools to their full level — the soils will not hold enough water to make it happen. These are the basic conditions that dictate what we can accomplish at any point in the year — and throughout the year, wetland area managers find themselves doing many different things.

The 100-acre semi-permanent marsh next to the Katy Trail at Diana Bend Conservation Area is a great place to take in a wetland landscape.

Wetland managers spend a lot of time observing the land for signs of how management decisions are affecting habitat and wildlife populations, or for signals that intervention is needed to cause or prevent a certain condition. There could be changes to trees or plants, or we might detect an invasive species. Unfortunately, most of our wetlands do have some invasives, species such as purple loosestrife, Eurasian water milfoil, and phragmites. Most wetlands near larger rivers also have populations of Asian carp. We work to reduce nonnative species whenever we can.

Other activities take place on wetland areas that tie into our essential management duties. We contract farming on our conservation areas and coordinate MDC crop shares with farmers

Native wetland plants, such as cattails, that grow from moist soil seeds provide food and cover for a variety of wildlife.



to ensure that wildlife species benefit. (Having local farmers plant and harvest crops saves time and money and helps achieve management goals.) We also manage water levels for important fisheries resources, help mark and monitor waterfowl populations, provide feedback to biologists responsible for managing deer, turkey, quail, dove, and waterfowl populations, and assist with counts of migratory bird species. We monitor the stability of levee systems that surround our wetland areas and the surrounding private landscape, and we are often asked to be a part of local levee boards due to our role as water consumers.

Moist Soil Management

We use a variety of methods to try and simulate the conditions that existed before European settlement to annually re-create wetland habitat. Most of these efforts are referred to as moist soil management — the act of drawing water down on a wetland area to stimulate moist soil seeds into germination. Native wetland plants that grow from these seeds provide food and cover for a variety of wildlife. From time to time, we will reset the succession of these pools by mowing, spraying, or burning them. Another common technique is soil disturbance. This helps rotate nutrients and seeds from lower depths back to the surface, stimulating another round of moist soil vegetation growth. Placing pools into an agricultural crop rotation can also help achieve soil disturbance goals.

Moist soil management requires good access to water, which is challenging in drought years, or if pumps malfunction. Flooding is also a problem, though, because wetland soils hold on to water. However, these areas also serve as important flood barriers — wetland plants use water to grow, and can prevent more flooding damage by soaking water up like a sponge.

Involving and Serving the Public

Wetland area staff often interact with students and the public and participate in partnerships with the local community. We help with outreach efforts and our facilities are sometimes used for hunter education courses or other outreach opportunities. We are often asked to serve on civic committees or with area schools. Many of our areas are used by hunting dog







clubs for field trials. At Eagle Bluffs CA, one of our primary goals is to involve the public and our nongovernment organization partners as much as possible. A good example is outside our headquarters building, where a native plant garden was established and is maintained by the Boone's Lick Chapter of the Master Naturalists. Other examples of projects include:

Wood Duck Boxes At Eagle Bluffs CA, we maintain wood duck nesting boxes and check them for the previous year's successful hatches, as well as any repairs that need to be addressed. This is a great activity for volunteers, and we typically have plenty of people come out to help us get the job done. Organizations like Missouri Waterfowl Association, the University of Missouri Student Chapter of The Wildlife Society, and the Boone's Lick Chapter of The Missouri Master Naturalists have been involved in wood duck box cleanup on Eagle Bluffs CA for many years. These boxes provide critical nesting habitat for wood ducks, which typically nest in old-growth bottomland hardwood forests, a habitat that has been largely lost in Missouri. The boxes at Eagle Bluffs CA have contributed to more than 250 wood duck nests during 2009-2012. They will also sometimes provide cover for unintended users, such as raccoons and screech owls.

Duck and Goose Banding Wetland area managers conduct annual Canada goose and wood duck banding operations. For wood ducks, bait piles and rocket nets are used to capture the ducks, then bands are attached to their legs. Canada geese are banded during a "goose roundup" held during the early summer when adult birds have hatched their young and have

molted their flight feathers. These exercises involve corralling geese into a standing net where they can be handled easily and safely.

Banded birds can be reported by hunters who harvest them during waterfowl season to the Bird Banding Lab operated by the USGS. This banding information is used by state and federal biologists to keep track of population and harvest information, which aids decisions about the length of seasons and the bag limits for different species.

Turtle Trapping During the spring and summer, we trap turtles on Eagle Bluffs CA as part of a mark-recapture program. Aquatic turtles benefit from our wetland management and use our pools to feed, rest, reproduce, and overwinter. The turtle project began in 2011 to help answer questions regarding how these animals respond to our intensive management of water and wetland habitat. So far, we have marked more than 700 turtles in two years. This project has been made possible by volunteers from the Missouri Master Naturalists, the Student Chapter of The Wildlife Society, researchers at Lincoln University in Jefferson City, the University of Missouri Herpetology Club, and local Eagle Scout groups.

Local Bird-Watching Community Many bird species pass through Missouri on their annual migration, and we try and provide habitat needs for those that come through our area. Shorebirds and wading birds are commonly seen on our area, as well as hawks and pelicans. These events are highly anticipated by local birdwatchers and wildlife photographers, and we see many area users during the spring and fall. We

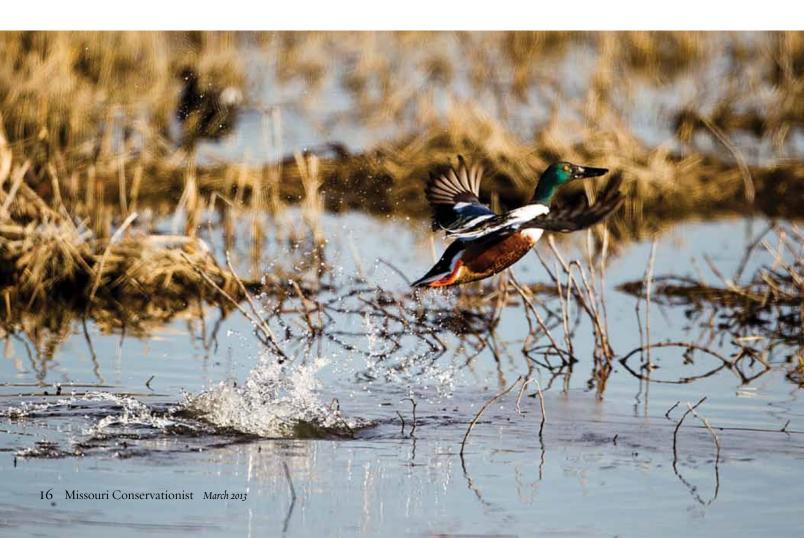
Eagle Bluffs Conservation Area staff involves the public as much as possible. **Examples include** (from left): a **local Cub Scout** group cleaning and maintaining wood duck boxes: Master Naturalist volunteer Chris **Egbert trapping** a common snapping turtle; and sandhill cranes, as well as many other shorebirds and wading birds, being viewed by the local birdwatching community.

Eagle Bluffs Conservation Area runs weekly duck surveys to provide hunters with an estimate of the duck population. For more information on waterfowl hunting on conservation areas, visit mdc.mo.gov/ node/303. also attract an interesting assortment of year-round birds, including sandhill cranes and bald eagles that have successfully reproduced on our area. Area users often report their sightings to CACHE (Conservation Area Checklist), an online database run by The Audubon Society of Missouri where wildlife professionals and the public can access information for conservation areas statewide (to learn more about CACHE, visit www.mobirds.org). This database can be a useful source of information on the timing of migration events from year to year.

Local organizations like the Missouri River Bird Observatory and the Columbia Audubon Society have helped us by assisting with bird counts, leading groups of students on bird watching trips, monitoring purple martin houses for nesting activity, and observing bird use of habitat that has been impacted by a management action.

Columbia Wastewater Eagle Bluffs CA is unique amongst our wetland areas due to its partnership with the City of Columbia. Waste-

water in Columbia initially is treated at the City of Columbia Regional Waste Water Treatment Plant (CRWWTP). This is a mechanical wastewater treatment facility that provides primary and secondary treatment of waste water. The effluent from the CRWWTP is then discharged to the City's Wetland Treatment Units. These facilities provide additional secondary treatment to the effluent utilizing cattails to remove nutrients from the waste water. Once it has passed through the constructed wetland system, the water is sent to Eagle Bluffs CA for use in wetland management. This invaluable resource accomplishes multiple goals, it is an efficient use of water for both entities — MDC gets water at no cost, and the City turns a byproduct into a tool for wetland management that has paid benefits to the local community hundreds of times over. Because of this water, we are able to moist-soil manage the area during the summer months without running our pumps, improving the value of the wetlands for wildlife dramatically while saving the Department the cost of higher electric bills.



Waterfowl Hunting

Waterfowl hunting season is one of the busiest times of the year on a wetland area. For 59 days, our areas are almost exclusively used by waterfowl hunters as North American waterfowl populations complete annual migrations to their wintering grounds. Hunters try their luck at one of our intensively managed areas in a lottery-style draw system. Area staff start their days as early as 2 a.m. to be prepared for prospective waterfowl hunters.

Many of our waterfowl positions are "wade and shoot," and have shallow water so hunters who don't own a boat can still find opportunities to hunt. Prior to duck season, we make sure to create areas free of vegetation for wade and shoot hunters, as well as provide open water for migrating ducks to land. We also provide duck hunting blinds for disabled and nondisabled hunters alike, and maintain them each year for use. This includes repairing any damage, removing pests like wasps and hornets, and disguising the blinds using grass mats and tree limbs.

Our partner organizations are also busy during duck season. Delta Waterfowl recently helped bring area youths to our 2012 youth hunt weekend. Missouri Waterfowl Association has had a long-standing partnership with the Department to provide waders for youth hunters to borrow at many of our intensively managed wetland areas. Many of the Department's wetland areas have some wetland habitat that has been restored by the U.S. Army Corps of Engineers and are supported financially to assist with the cost of pumping during duck season.

We run weekly duck surveys either by ground or by air to provide hunters with an estimate of our duck population, as well as contributing to nationwide surveys like the mallard migration network (visit mdc.mo.gov/ node/2614 to learn more). These numbers help hunters decide which areas to hunt, and provide researchers and managers with information about migration and duck harvest numbers (for more information on waterfowl hunting on conservation areas, visit mdc. mo.gov/node/303).

Throughout the hunting season we are still watching our water levels and pumping activities closely, focusing on the preferred feeding depths of different waterfowl and wildlife species.



There are many moving parts and changing priorities for wetland managers. Shifting patterns of area use, weather, rainfall, and hydrology add to the challenge. Our goal remains the same, however; we manage a much-reduced resource to provide the best possible habitat conditions and make our areas as user-friendly for as many people as possible. The instruction manual for wetland management gets rewritten each year, but that's part of what makes the job fun. ▲

Vic Bogosian III is the manager for Eagle Bluffs Conservation Area in Boone County. Waterfowl hunting season is one of the busiest times of the year on a wetland area.



by LARRY R. BECKETT

ARCH 1ST. It'S COMING. OPENING DAY OF CATCHand-keep trout season. Calendars are marked. Vacation days are scheduled. The anticipation is rising exponentially. When it arrives, men, women, and children will arise long before daylight, travel to the nearest trout park, and join thousands of other early risers in the line to buy a trout tag at the bait shop. Once properly tagged, the search for the perfect spot along the river will begin. With the intensity of a lion stalking its prey, they walk the banks, peering into the crystal clear waters looking for the right combination of trout, water flow, and space between the other anglers. Once their claim is staked, they wait patiently in the dark, rod in hand, ears perked. Ready to test their skills against the nearest trout lurking in the shadows. The unmistakable sound of "the whistle" will unleash a flurry of rods whipping, lures flying, drags singing, and fish jumping. Tangles are inevitable as are missed strikes, lost fish, and the frequent changing of lures, but it's the excitement of the morning, the challenge of outsmarting a fish that others couldn't, the potential to fill a stringer, and the opportunity to socialize with people that share the same love of trout fishing that brings thousands of Missourians out for "the opener" every year.

Larry R. Beckett is a writer, photographer, and videographer from Bentonville, Ark.

Trout Parks

All four trout parks are open and stocked daily from March 1 through Oct. 31. Anglers need a fishing permit, unless exempt, as well as a daily trout tag. The daily trout tag is \$3 for adults and \$2 for those 15 and younger. At Roaring River State Park, a daily tag or a trout permit may be used for fishing from the first bridge below the old dam in Zone 3 to the downstream park boundary.

The daily limit is 4, and you must stop fishing for any species after having 4 trout in possession. Ask for details about area regulations when you purchase your tag.

Catch-and-release fishing is available from Nov. 9 through Feb. 11. Parks are open from 8 a.m. to 4 p.m. on Friday through Monday. A fishing permit, unless exempt, and a trout permit are required. Only flies may be used.

Bennett Spring State Park

Address: 26250 Hwy 64A, Lebanon, M0 65536-6797 Website: mostateparks.com/park/ bennett-spring-state-park Park office: 417-532-4338

Maramec Spring Park

Address: 21880 Maramec Spring Drive, St. James, MO 65559 Website: maramecspringpark.com James Foundation office: 573-265-7124

Montauk State Park

Address: 345 County Road 6670, Salem, MO 65560-9025 Website: mostateparks.com/park/ montauk-state-park Park office: 573-548-2201

Roaring River State Park

Address: 12716 Farm Road 2239, Cassville, MO 65625 Website: mostateparks.com/park/ roaring-river-state-park Park office: 417-847-2539







■ Morning Mist
Early risers are often rewarded with a mist hovering over the clear, cold rivers.

18-55mm lens • f/5.6 • 1/80 sec • ISO 400



◀ Close-Quarters Casting Thousands of Missourians line the trout rivers

on opening day.

75-300mm lens • f/5.6 • 1/400 sec • ISO 200



Changing lures to match the hatch, or whatever the fisherman with the full stringer was using, is all part of the pursuit.

70-200mm lens • f/2.8 • 1/20 sec • ISO 400



▲ Catch and Release

Many Missourians practice catch and release, and proper handling of the fish ensures they will live to fight again.

Point and shoot • f/2.8 • 1/400 sec • ISO 82

► It's About More Than the Fish

The memories made with children on opening day can create a lifetime love of fishing.

70-200mm lens • f/3.5 • 1/30 sec • ISO 400







Buy Fishing Permits Online at:

mdc.mo.gov/node/9258

Fishing Regulations Available at:

- Permit vendors
- mdc.mo.gov/node/3104

Missouri Trout Fishing Waters:

For a full listing of all areas to trout fish in the state, visit mdc.mo.gov/node/5603.

■ Warming Up Wet hands and the cold air

surrounding the spring-fed rivers can make "thawing out" a necessity.

70-200mm lens • f/4.5 • 1/25 sec • ISO 100

◆ Plenty of Room

Despite the large quantity of opener attendees, the cast-and-move method used by many ensures that there is always a spot to fish.

18-55mm lens • f/10 • 1/100 sec • ISO 800





ecoming a wild turkey hunter in springtime is easy. You step into the woods at dawn and open your senses. Sunrise alters colors and shapes. Scents from soil, trees, and wildflowers mingle in cool air. Small birds chirp. Down the ridge a barred owl belts out a vocal purr that resembles "who cooks for you, who cooks for you all."

The owl's bold call might make a tom turkey rise up on his tree-limb roost and let rip a rolling gobble just to let every creature know he's the real boss of the woodlands.

"Yelp yelp," you might answer sweetly with a wood, slate, or diaphragm call designed to help you imitate a hen turkey looking for a willing partner in an ancient spring mating ritual.

The tom's viral "gobble gobble gobble" reply jolts your brain, especially if the sound is close, perhaps he's on the ground and headed your way. But you turn eyes and ears in his direction carefully and then freeze, for you want to conceal your presence from one of nature's most keeneyed birds. You are not separate from nature, but rather part of irrepressible natural life renewing in the most urgent season — that's turkey hunting.

Newcomers to the sport need not be daunted by complex gobbler-versus-hunter tales oft heard in coffee shops in late April and early May. Nor should they feel compelled to acquire gear beyond a few good calls and camouflage clothing. Hunting wild turkeys can be simple and affordable.

Calling a gobbler into gun range might be easy, hard, or impossible, depending on the tom's mood. Yet each morn-



Calling a gobbler into gun range might be easy, hard, or impossible, depending on the tom's mood. Yet each morning of the three-week season offers another chance for success.

ing of the three-week season offers a chance for success. Hunters harvested more than 40,000 toms or bearded hens during Missouri's 2012 spring turkey season. It helps that Missouri is a great place to hunt with healthy turkey flocks throughout the state. That doesn't always make turkey hunting easy, though, because the largest bird in the woods is also among the wariest.

But turkey hunting skills are easy to learn for those willing to look, listen, and practice. Turkeys are the best teachers, and the spring woods make a beautiful classroom.

Where to Go

Missouri's eastern wild turkeys are a woodland bird. But they also like feeding and loafing in open crop fields and grassy meadows. In spring, their tree-limb night roosts will often be near streams with weedy or shrubby cover where hens find nesting cover.

Conservation areas offer both newcomers and veterans habitat-rich places to hunt turkeys. To look for Department-managed public hunting areas, go to the conservation atlas at mdc.mo.gov/node/8911.

Last spring, Scott Brant of Warrensburg killed a trophy gobbler and helped another hunter bag a tom at the Department's J.N. Turkey Kearn Memorial Wildlife Area in west central Missouri. Public lands often, but not always, get heavy hunting pressure. Yet they can still offer good turkey hunting action.



Tom turkeys usually gobble most from tree roosts at sunrise or after they glide down to the ground in the early morning hours.



"Patience is the biggest thing on public land," Brant said. "I personally have had more success calling in turkeys late in the morning. Don't give up."

Tom turkeys usually gobble most from tree roosts at sunrise or after they glide down to the ground in the early morning hours. That's the peak time for mating with hens and jousting other toms or young jakes away from hens. The gobbling reveals a turkey's location and helps hunters know when and where to call to lure them into gun range. When the early morning gobbling ceases and the woods get quieter, many hunters leave the field for the day.

But after 10 a.m., as hens wander away to tend nests or feed, Brant has found gobblers are often still responsive to calls. Being still, alert, and persistent is important for late-morning hunting success.

"Sometimes they will come in quiet and show up out of nowhere," he said.

Private lands with forest or with timber-bordered fields may offer excellent hunting. But hunters should always obtain permission and avoid trespassing. The U.S. Forest Service and the U.S. Army Corps of Engineers also manage land open to public hunting, giving Missouri hunters even more options.

Scouting an area that you plan to hunt in the weeks before turkey season can greatly increase your chances for success. Listen for where turkeys are gobbling in the early morning hours. In the woods, look for bare-dirt ovals where they've scratched back leaves to look for bugs to eat. Get to know the terrain so you'll already know good places to "set up." That's turkey hunter talk for a good tree, stump, or blow down where you can sit down to call and hopefully to shoot. A tree at your back gives you something to lean against and breaks your outline to improve concealment.

Gear

Old-time turkey hunters made their own wooden or slate calls and wore whatever old clothes that blended in with the woods and kept them warm while they hunkered down on a cool, early spring morning.

Today, though, hunters can choose from a broad assortment of camouflage clothing, factory-made calling devices, camouflage ground blinds, gear vests, and lifelike decoys that appear in every pose possible for a turkey. Shotguns and shotgun shells designed for turkey hunting come in a wide array.

Many turkey hunters prefer a 12-gauge shotgun with a full choke loaded with magnum shells firing No. 4 to No. 6 shot. But other gauges and chokes will work. It's ok to make do with the shotgun at hand, one borrowed, or one bought used at an inexpensive price. Hunters should shoot ammunition designed for turkey hunting. But the critical component is that a hunter practices shooting to know how the shotgun and ammunition will perform at ranges from 20 to 50 yards. Studying pellet holes in a paper or cardboard target will help you sharpen your aim point and hone in on effective shooting ranges.

Department shooting ranges and education centers offer classes on turkey hunting and shooting skills. The ranges are also a good place to test shotgun shell patterns and to practice shooting skills.

For information about shooting ranges: *mdc.mo.gov/node/6209*. Also, go to the *mdc.mo.gov/events* to find classes and events in your area.

Green and brownish clothing in camouflage patterns — pants, hat, shirt, and face mask — are invaluable. Inexpensive versions work fine in good weather. Turkey hunting clothes, worn mostly in spring and fall seasons, can last for years. Do not wear the colors blue, red, white, or black, as turkeys have bluish to whitish heads, red waddles,

and gobblers have blackish feathering. You don't want to be mistaken for game.

Calling turkeys — imitating turkey vocalizations — is fun and perhaps the sport's finest skill. Some experts make turkey talk with their mouth and throat. Most hunters, though, use man-made calls. Many turkey hunters start with a simple box call that easily imitates a hen's clucks and yelps. A wooden paddle or striker is rubbed across the top edge of the box side and the friction creates the sound. Slate calls are another standby. A wooden or plastic peg is rubbed across the slate to mimic turkey purrs and clucks. Box calls and slate calls are good starting points for new hunters.

"Just a simple call that you can use effectively, that's all you need," said Brant, who is also a volunteer Missouri Hunter Education instructor.

CDs and tapes are available on how to make seductive turkey sounds, and these days, the Internet offers many free sites that teach turkey calling.

As a Missouri Hunter Education volunteer instructor, Hannah Rogers knows the importance of teaching her children gun and hunting safety.



A compass in your pocket is handy for preventing getting lost. Many hunters carry snacks and water. Insect repellant is invaluable if the weather warms and mosquitos and ticks become active.

Gear such as life-like turkey decoys and camouflage ground blinds, which conceal hunters and resemble small tents, sometimes help bag a turkey and sometimes they do not. Enjoy them if you wish but do not consider them an essential requirement if cost is a concern. They add to your carry load and make it more difficult to move in response to gobbling or to explore the woods for a fresh setup location. Many veteran hunters prefer to travel light, move when they feel like it, and let stealth and careful calling bag the bird.

Don't forget to bring some type of blaze orange bag or strap to carry your turkey out of the woods, which helps keep you safe. Some hunters put a blaze orange sash on the tree where they set up to warn other hunters of their presence.

First Hunts

Hannah Rogers of rural Warrensburg hunted turkeys as a youth with her father in St. Clair County. A few years ago, they hunted together again and she bagged a nice tom. Now, the mother of four young children is back into the sport and planning how she will introduce her own family to the tradition.

"A big thing for kids is learning how to be quiet in the woods," Rogers said. "One of the biggest things we do all the time is to walk out in the woods and watch for animals or pick up interesting leaves."

Those hikes help kids learn about the woods but also about quiet movement, skills that translate to turkey hunting for all ages. Wild turkeys possess excellent eyesight and hearing. They won't grow into adult birds without using their senses to avoid dangers from woodland predators.

Movement and sound puts turkeys on alert. Many a turkey has spied a hunter turning their head, scratching an itch, or reaching for a box call. The usual result is a turkey quietly slipping back away without the hunter knowing the quarry was near.

But for Rogers on her last successful hunt, simple tactics worked. She and her father heard turkeys and saw some fly down into a field. They moved to a good spot. She sat still against a tree. Her father hid behind a tree and made the turkey hen sounds of yelps, clucks, and purrs. A tom came in within close range and she shot it.

"I was so excited to get back into turkey hunting and get a bird," Rogers said.

Now, for her children, the next step is teaching them gun and hunting safety. She is also a Missouri Hunter



Education volunteer instructor, a Protection Division volunteer, and a college student.

"One of the biggest things with kids is gun safety," Rogers said. "Maybe I'm a protective mom, but when it comes to gun safety, I don't think you can be overprotective."

For information about Missouri's hunter education and safety programs, go to *mdc.mo.gov/node/3095*. A hunter education course certificate is required for anyone hunting alone who was born after 1966.

Brandon Pope, a Department education specialist in Kansas City, stepped into the woods for his first turkey hunt last spring. Pope bought some basic camouflage apparel — pants, a long shirt with big pockets, and a cap with an attached face mask — for about \$100. He practiced hen yelps with a box call, and he fired test patterns with a borrowed shotgun at a Department shooting range.

Then a sunrise found him seated on a ridge with his back against an oak tree.

"When we sat down, I heard a barred owl call," Pope said, "and we saw other animals moving around like squirrels and songbirds. You could hear the river gurgling. Just hearing nature all around us was the good part."

A hen turkey flew down off the wooded ridge where he sat and began feeding within sight in a crop field. Then another hen flew down and marched away into woods. Finally...well, no, a gobbler did not appear. The toms were all gobbling and strutting on the other side of the valley.

Regardless, "I had a good taste of turkey hunting," Pope said. "I want to go again and I'm ready to bag a bird. But that's just the culmination. Turkey hunting is a lot more than just shooting a gun." \blacktriangle

Bill Graham is a media specialist for the Missouri Department of Conservation. He lives in Platte City.



Redhead

Enjoy these colorful ducks this spring along the Mississippi River as they head to breeding grounds north of Missouri.

WHEN MY FRIEND Kevin asked, "Would you like to photograph a redhead?" I smiled suspiciously, but I knew he wasn't steering me toward fashion photography. Kevin was talking about a duck. In this case, a drake redhead, a hard-to-photograph species, typically found on big water such as the Mississippi River. Feeling a bit skeptical, I asked "How close can I get to this redhead?" Kevin replied, "That's the best part Danny; you can walk right up to it!"

The redhead had alighted on a small city lake a few weeks earlier and was feeding and loafing with several mallards, both wild and domestic. During its stay it had become as approachable as some of its flightless pals. "Oh, and one more thing," he added, "The plumage on its left side looks a little rough but its right side is in mint condition." The plan was set. I would head out the next morning to photograph one of Missouri's most attractive diving ducks, from the right side of course.

The redhead (Aythya americana), is classified as a bay duck and is one of several waterfowl species that dives to the bottom of rivers, marshes, and lakes to forage for aquatic vegetation and invertebrates. Waterfowl hunters often refer to redheads and other diving ducks simply as "divers." The drake redhead is striking with its chestnut-colored head, black chest, gray back, and orange-yellow eyes. Its bill is slate blue with a black tip. Female redheads are much more subdued in color as is often the case with waterfowl. Redheads are considered an uncommon migrant in Missouri but it is not unusual to see them in large rafts with other divers in the fall and spring. Redheads typically breed north of Missouri, on the Great Plains and into Alaska and they are known for their propensity to lay some of their eggs in the nests of other ducks, apparently as a hedge against brood mortality.

As I pulled into the parking lot of the small lake it only took a moment to spot the redhead, its russet-colored head glowing in the early-morning light. It had taken a companion, a white domestic mallard that it followed closely around the lake. I didn't have much trouble getting in range as the tame mallard immediately approached me for a handout. The first thing I noticed was the disheveled plumage on the left side of the redhead, just as Kevin had described. I couldn't ascertain if the wrinkled feathers were a result of injury or illness but it appeared to be in otherwise healthy condition. I fell into position for a low angle shot and waited for the stunning bird to reveal its "mint" side. As it crossed the lake at a perfect angle I made my first images of the species, a redhead in spring plumage. I called Kevin later that evening to thank him for his thoughtful tip, and I made a mental note to make him a nice print of the wayward diver with a red head.

> -Story and photo by Danny Brown 500mm lens • f/7.1 • 1/200 sec • ISO 400

We help people discover nature through our online field guide. Visit mdc.mo.gov/node/73 to learn more about Missouri's plants and animals.







Magnolia Hollow Conservation Area

Filled with outdoor-recreation, nature-viewing and wildlife-watching opportunities, this Ste. Genevieve County hollow is anything but empty.

DESPITE ITS "EMPTY" name, there is plenty to see at Magnolia Hollow Conservation Area (CA) in Southeast Missouri. Magnolia Hollow is a deep draw containing a variety of plant life and wildlife habitat, but the 1,740-acre area that shares its name is home to even more magnificent sights.

A tree-heavy destination, Magnolia Hollow CA's forests range from mixed hardwoods to cedar glades. Magnolia Hollow itself, designated as a natural area, features various types of trees, shrubs, and wildflowers, including begonia orchids. The area's picturesque landscape pinnacles with steep bluffs and scenic views of the Mississippi River.

A nature-viewing tour of Magnolia Hollow CA would not be complete without seeing some of the area's wildlife. For example, lucky bird watchers might spy an eagle along the river. A disabledaccessible viewing platform looks over the Mississippi River and Establishment Creek bottoms.

Visitors can view Magnolia Hollow CA's features and wildlife from the ground on one of two hiking trails, one just over a mile long and the other less than half a mile long and disabledaccessible. Bicycling is permitted on area service roads, along with primitive camping at individual campsites with fire grates.

Hunters are welcome to pursue deer, turkey, and small game during the appropriate seasons. A small archery range and a disabled-accessible shotgun-shooting range, both unstaffed, give hunters a chance to do some target practice before their seasons open.



16-35mm lens • f/6.3 • 1/40 sec • ISO 800

Magnolia Hollow CA's management maintains quality habitat for native wildlife. Wildlife management techniques include creating watering ponds; planting fields of green browse and grain crops to serve as food sources for animals; harvesting timber to improve forage and cover for wildlife and maintaining warm-season grass, old fields, and brushy cover along field edges to benefit upland wildlife such as quail and rabbits.

The area requires forest management practices including timber harvests, timber stand improvements, and prescribed burns to maintain a healthy forest and provide habitat for deer and turkey. Management of the Magnolia Hollow and Establishment Creek corridors is minimal, consisting mostly of invasive species control and some prescribed burning, and protects the steep, sensitive watersheds.

Magnolia Hollow CA is located 10 miles north of Ste. Genevieve and south of Bloomsdale, just off Highway 61. For a map and brochure, visit the website listed below.

-Rebecca Maples, photo by David Stonner



Recreation opportunities: Archery range, bicycling, bird watching, camping, hiking, hunting in season, nature viewing, shotgun shooting range

Unique features: This area features scenic forests, riverside views and several disabled-accessible opportunities for nature viewing and outdoor recreation.

For More Information Call 573-290-5730 or visit mdc.mo.gov/a8508.

Kids in Nature

During the early evening go outside to listen for spring peepers. These small frogs are only about an inch long, but when they all sing at the same time they make a big sound. Their calls are one sign that spring is coming. To learn more or to listen to their call, visit mdc.mo.gov/node/3067.





Look for places in your vard or neighborhood where an animal could hide from the rain.



Look for four-leaf clovers.

Find five different shades of green outside.



Try to spot a **robin** and draw a picture of it.

Dead standing trees are called snags. Take a walk in the park or the woods to look for a snag. Snags with holes or that are hollow are often used by squirrels, raccoons, bats, and many kinds of birds. See if you can spot one of these animals on or near a snag.

Kids in Nature Photo Contest!

Break out those cameras and send us your best images of you and your family enjoying the outdoors for our new photo contest. Once again, we will be accepting entries via the online photo sharing service, Flickr. If you are not a member of Flickr, it is easy and free to join. Once you are a member, just navigate to our kids in nature group page: www.flickr.com/groups/mdc-kids-innature and submit your photos. MDC staff will select a winner every month and display it on our website. All of the monthly winners will appear in the January 2014 issue of the magazine.

Celebrate the arrival of spring March 20. Notice how day and night are equal in length.



I Am Conservation

Mike Theurer of Dade County has worked with the Conservation Department for years to improve grassland habitat on his property, which is part of the Golden Grasslands Conservation Opportunity Area (COA). The Golden Grasslands COA includes land important for the restoration of greater prairie chickens. About 95 percent of the COA is privately owned, so landowners like Theurer are crucial to a successful restoration. "Mike is a true partner in grassland conservation," said Max Alleger, Department grassland bird coordinator. "MDC has long known that successful recovery of prairie chickens and other grassland birds — all wildlife, really — hinges on the interest and help of private landowners." Theurer has removed trees to expand the prairie vista, an essential starting point for prairie-chicken habitat, and has worked to remove invasive exotic plants, such as tall fescue and sericea lespedeza. "The work Mike has done on his own land is important," said Alleger, "and his leadership in spreading awareness among his neighbors has helped improve and protect even more grassland." — photo by Noppadol Paothong.